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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,537	02/28/2002	Norman Epstein	T147	9806

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EXAMINER	
CHEN, SHIH CHAO	
ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,537	EPSTEIN ET AL.	
	Examiner	Art Unit	
	Shih-Chao Chen	2821	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. In response to the communication dated February 28, 2002 through May 03, 2002, claims 1-26 are active in this application.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Oath/Declaration

3. Oath/Declaration filed on May 03, 2002 has been considered.

Specification

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claim 2 is objected to because of the following informalities: the phrase "circuit material" should be changed to --a circuit material--. Appropriate correction is required.

6. Claims 8-9 are objected to because of the following informalities: the phrase "display material" should be changed to --display--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5, 7-19 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Mandai et al. (U.S. Patent No. 5,909,198).

Regarding claim 1, Mandai et al. teaches in figures 1-4 a portable communications and display system, comprising: a chip antenna [11] to transmit and receive RF signals; a lens material [17] (i.e. a base member made from a glass epoxy resin, See col.2, lines 66-67) for mounting the chip antenna [11]; a conductive material [4] for providing a chip antenna ground plane wherein the conductive material [4] provides an operative coupling between the lens material [17] and the chip antenna [11]; and a communications subsystem (i.e. an RF section, See col. 3, lines 16-18) that is associated with the lens material [17] and is operatively coupled to the chip antenna [11] for processing the R-F signals.

Regarding claim 2, Mandai et al. teaches in figures 1-4 the system further comprising a circuit material [1] for coupling the chip antenna [11] to the communications subsystem.

Regarding claim 3, Mandai et al. teaches in figures 1-4 the system wherein the circuit material [1] is a flexible circuit material (i.e. a glass epoxy resin; See col. 3, 9-11).

Regarding claim 4, Mandai et al. teaches in figures 1-4 the system wherein the circuit material [1] is adhesively coupled to the lens material [17] (See FIG. 1-2).

Regarding claim 5, Mandai et al. teaches in figures 1-4 the system wherein the circuit material [1] is coupled to a display (Examiner Note: it is inherent that the circuit board is coupled to a display used for mobile communications).

Regarding claim 7, Mandai et al. teaches in figures 1-4 the system wherein the flexible circuit material [1] is utilized to couple the chip antenna [11] to the communications subsystem.

Regarding claim 8, Mandai et al. teaches in figures 1-5 the system wherein the circuit material [1] is coupled to the communications subsystem through an opening [23] in lens material [22].

Regarding claim 9, Mandai et al. teaches in figures 1-4 the system wherein the circuit material [1] is coupled to the communications subsystem by passing over the lens material [17].

Regarding claim 10, Mandai et al. teaches in figures 1-4 the system wherein the conductive material [4] is a coating.

Regarding claim 11, Mandai et al. teaches in figures 1-4 the system wherein the communications subsystem (I.e. an RF section) includes at least one of an RF transmitter and receiver.

Regarding claim 12, Mandai et al. teaches in figures 1-4 the system wherein the communications subsystem is a cell-phone.

Regarding claim 13, Mandai et al. teaches in figures 1-4 the system wherein the lens material [17] is glass and plastic.

Regarding claim 14, Mandai et al. teaches in figures 1-4 the system further comprising a bezel [13] to provide protection for the chip antenna [11].

Regarding claim 15, Mandai et al. teaches in figures 1-4 a method providing portable communications and display, comprising: utilizing a chip antenna [11] for

transmitting and receiving RE signals; applying a conductive material [4] to a lens material [17] to provide a ground plane for the chip antenna [11]; mounting the chip antenna [11] to the conductive material [4] and lens material [17]; and coupling the chip antenna [11] to a communications subsystem (i.e. an RF section) that is associated with the lens material [17] for processing the RF signals.

Regarding claim 16, Mandai et al. teaches in figures 1-4 the method further comprising utilizing circuit material [1] for coupling the chip antenna [11] to the communications subsystem.

Regarding claim 17, Mandai et al. teaches in figures 1-4 the method wherein the circuit material [1] is a flexible circuit material.

Regarding claim 18, Mandai et al. teaches in figures 1-4 the method wherein the circuit material [1] is adhesively coupled to the lens material [17].

Regarding claim 19, Mandai et al. teaches in figures 1-4 the method further comprising, coupling the lens material [17] to a display.

Regarding claim 21, Mandai et al. teaches in figures 1-4 the method wherein the flexible circuit material [1] is utilized to couple the chip antenna [11] to the communications subsystem.

Regarding claim 22, Mandai et al. teaches in figures 1-4 the method wherein the conductive material [4] is a coating.

Regarding claim 23, Mandai et al. teaches in figures 1-4 the method wherein the communications subsystem includes at least one of an RF transmitter and receiver (i.e. an RF section).

Regarding claim 24, Mandai et al. teaches in figures 1-4 a system providing portable communications and display, comprising: a chip antenna [11] for transmitting and receiving RF signals; means for coating a lens material [17] to provide a ground plane [4] for the chip antenna [11]; means for mounting the chip antenna [11] to the lens material [17]; and means for coupling the chip antenna [11] to a communications subsystem (i.e. an RF section) that is associated with the lens material [17] for processing the RF signals.

Regarding claim 25, Mandai et al. teaches in figures 1-4 a portable communications system, comprising: a chip antenna [11] to at least one of transmit and receive an RF signal; a transceiver (i.e. an RF section) operatively coupled to the chip antenna [11] to process the RF signal; and a lens material [17] having a coating that provides a chip antenna ground plane [4] to enable the RF signal processing.

Regarding claim 26, Mandai et al. teaches in figures 1-4 the system wherein the coating is a translucent material.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandai et al. (Cited above).

Mandai et al. teaches in figure 2 the other end of the transmission line 2 on the circuit board 1 is connected to an RF section except for connectors are utilized to couple the circuit material (i.e. circuit board) to the communication subsystem (i.e. an RF section).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to using connectors to couple the circuit material to the communication subsystem because it is well known in the art by using connectors to connect the transmission line on the circuit board to the RF section.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (703) 306-2721. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Shih-Chao Chen

Shih-Chao Chen
Examiner
Art Unit 2821

SXC
April 23, 2003